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EXAMINER	
NGUYEN, KEVIN M	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/822,198	KIMURA, TOMOHIRO	
	Examiner	Art Unit	
	Nguyen M. Kevin	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/13/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

In response the applicant's amendment filed on 12/05/2007, claim 9 is newly added, and claims 1 and 5 are amended. Thus, claims 1-9 are pending in this application. In response to the applicant's argument, see pages 7-8, filed on 12/05/2007, with respect to claims 1-9 have been fully considered and are not persuasive. The amendment to claims 1, 5 and 9 necessitated a new ground(s) of rejection. The original claim 8 was kept the old ground of rejection presented in this final office action.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 6,776,824, Suzuki) in view of Hara et al. (US 7,190,401, Hara).

3. As to claim 1, figures 3 and 4 Suzuki teach a display apparatus, comprising:

display means including a display screen (8);

image signal generating means (1) for generating an image signal corresponding to a no-picture region of a display region on the display screen, the no-picture region being a remaining portion of the display region in which a picture screen is excluded, the picture region an input image signal;

composing means (4) for generating a composite image signal in which an image signal for the no-picture region is combined with the input image signal;

display brightness level setting means (9) for setting a display brightness level based on an average brightness level of the composite image signal from the means;

display drive means (6) for driving the display means to a brightness in accordance with the display brightness level set by said display brightness level setting means;

average brightness level detecting means (15) for detecting an average brightness level of the input image signal; and

no-picture brightness level setting means for setting a brightness level of the image signal for the no-picture region based on the average brightness level detected by the average brightness level detecting means, whereby a display brightness level at which a visual brightness of the no-picture region is substantially constant is set by the display brightness level setting means, as discussed in col. 6, lines 62 through col. 7, line 11. The operation above-identified elements are described in col. 2, lines 25-59, col. 5, line 40 to col. 6, line 30, and col. 7, line 12 to col. 8, line 67.

Suzuki fails to teach a display screen of an aspect ratio that is different from an aspect ratio of an image corresponding to an input image signal.

In the alternate embodiment, figure 6 of Hara teaches the image with an aspect ratio 16:9 being displayed on the screen which is different from the signal format of the image signal Dq identified by the determiner circuit 311 having a target image with an aspect ratio of 4:3, see col. 7, lines 31-67 and col. 9, lines 3-24.

As to claim 2, Suzuki teaches the display apparatus according to claim 1, wherein: the display brightness level setting means sets the display brightness level higher in a case that the average brightness level of the composite image signal is lower, and sets the display brightness

level lower in a case that the average brightness level of the composite image signal is higher and also when the brightness levels in both cases are equal, col. 2, lines 54-59.

As to claim 3, the display apparatus according to claim 1, wherein the display screen has an aspect ratio elongated in a lateral direction as compared with a 4:3 aspect ratio, the picture region having has the 4:3 aspect ratio and is placed at a center in the lateral direction of the display screen having the laterally elongated aspect ratio, and the no-picture region is formed in both of right and left sides of the picture region. (In the alternate embodiment, figure 6 of Hara teaches the central image with an aspect ratio 4:3 being displayed on the screen which has a left side and a right side as the black region).

As to claim 4, Suzuki teaches the display apparatus according to claim 1, wherein, on the display screen, pixels are formed from respective display cells of three primary colors, and a grayscale representation is performed by controlling a light emission period of the display cell for each of a plurality of sub-fields, the sub-field being formed by dividing one field, the input image signal includes image signals of three primary colors respectively corresponding to the display cells of three primary colors, and each of the image signals of three primary colors is averaged for each pixel and supplied to the average brightness level detecting means (the image signal input inherently has RGB and is driving by subfields SF0 to SF7, col. 1, lines 30-40).

4. The limitation of **claim 5** is similar to those of **claim 1**, though in method form, therefore the rejection of **claim 5** will be treated using the same rationale as **claim 1**, which omits the step of driving the display means to a brightness in accordance with the display brightness level set by said display level setting means.

Claim 6 shares the same limitations as those of claim 2 and therefore the rationale for rejection will be the same.

Claim 7 shares the same limitations as those of claim 3 and therefore the rationale for rejection will be the same.

As to claim 9, the display apparatus according to claim 1, wherein the no-picture brightness level setting means comprises a look up table in which no-picture region data is cross-referenced to average brightness level of the input image signal. (In the alternate embodiment, Hara discloses the luminance levels and display modes are stored beforehand in a non-volatile memory 316 (look up table as claimed) shown in fig. 2. Storing the information for setting luminance reference images in the nonvolatile memory 316 allows a desired luminance reference image to be promptly displayed simply by reading desired information for setting, col. 11, lines 47-53).

Hara's benefit permits easy adjustment of the luminance and contrast of an image display apparatus and to permit easy check of the brightness of target image (col. 1, lines 53-56 of Hara). Thus, it would have been obvious to a person of ordinary skill in the art to apply Hara to Suzuki to achieve the predictable result. Using the known technique of Hara would have been obvious to one of ordinary skill.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al (US 6,776,824, hereinafter Suzuki).

7. **Claim 8** shares the same limitations as those of original **claim 1** and therefore the rationale for rejection will be the same. As to claim 8, figures 3 and 4 Suzuki teach a display apparatus, comprising: display means including a display screen (8); image signal generating means (1) for generating an image signal corresponding to a no-picture region of a display region on the display screen, the no-picture region being a remaining portion of the display region in which a picture screen is excluded, the picture region an input image signal; composing means (4) for generating a composite image signal in which an image signal for the no-picture region is combined with the input image signal; display brightness level setting means (9) for setting a display brightness level based on an average brightness level of the composite image signal from the means; display drive means (6) for driving the display means to a brightness in accordance with the display brightness level set by said display brightness level setting means; average brightness level detecting means (15) for detecting an average brightness level of the input image signal; and no-picture brightness level setting means for setting a brightness level of the image signal for the no-picture region based on the average brightness level detected by the average brightness level detecting means, whereby a display brightness level at which a visual brightness of the no-picture region is substantially constant is set by the display brightness level setting means, as discussed in col. 6, lines 62 through col. 7, line 11. The operation above-identified

elements are described in col. 2, lines 25-59, col. 5, line 40 to col. 6, line 30, and col. 7, line 12 to col. 8, line 67.

Response to Arguments

8. Applicant's arguments filed 12/5/20007 have been fully considered but they are not persuasive. With respect to claims 1, 5, and 8, the applicant argues Suzuki does not teach "generating an image signal corresponding to a no-picture region of a display" and "setting a brightness level of the image signal for the no-picture region." These are not found to be persuasive. In the alternate embodiment, col. 8, lines 40-48 of Suzuki discloses "for averaging purposes, the pixel values in the outermost row and columns are copied to imaginary pixels disposed just outside the image area," which implies Suzuki teaches generate an image signal for pixels that fall outside the picture region. In the alternate embodiment, col. 10, lines 58-65 of Suzuki teaches pixel values are ten-bit values are normalized by dividing by 2^{10} (1024) which indicates luminance level equal to 1/1024, 2/1024, and 3/1024 of the theoretical maximum luminance level. The pixel values shown in fig. 16 belong to the non-displayable component of the image signal, which implies setting a brightness level of the image signal for the no-picture region.

The amendment to claims 1, 5 and 9 necessitated a new ground(s) of rejection. The original claim 8 was kept the old ground of rejection.

The rejections of claims 1 and 5 are maintained. Therefore, the rejections of those claims depend on claims 1 and 5 are also maintained.

For theses region, the rejections of claims 1- 9 are maintained.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen M. Kevin whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin M. Nguyen/
Kevin M. Nguyen
Examiner
Art Unit 2629